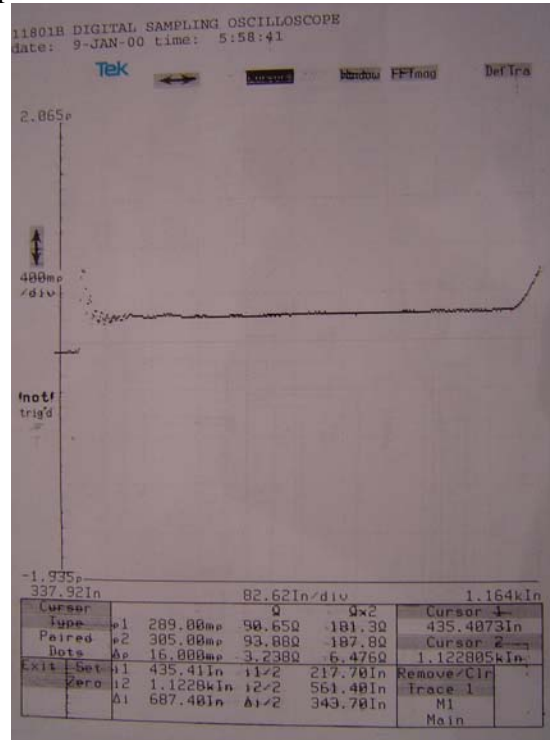


Hi Nikos, Mark,

Impedance matching:

I used a  $112.8 \pm 0.1$  Ohm resistance to match the impedance of the cable with the 50 Ohm pulse generator and it works.

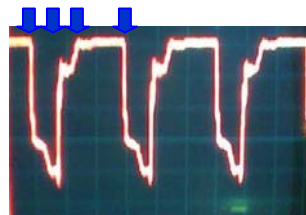
The impedance of the plated foil cable is  $\sim 94$  Ohm



Differential impedance of the plated foil cable (mOhm – vertical axes) in function of the length (inches – horizontal axes)

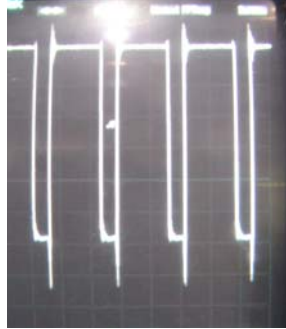
With this device is good to see impedance matching between components.

Here it is the input signal



$$620 \pm 4 \text{ ns} = (222 + 112 + 286) \text{ ns}$$
$$2.00 \pm 0.02 \text{ V}$$

There is still some reflection if you compare with the naked signal:



The input signal has a main frequency of  $1.613 \pm 8$  MHz in this case the output has a delay of  $53.00 \pm 0.05$  ns (consistent with the reflection observed).



Input and output signal



Same with better time scale

The maximum signal offered by the signal generator is  $2.178 \pm 0.05$  MHz. For this signal the time delay is  $53.8 \pm 0.1$  ns.

The next step will be use a signal generator which can run till 20 MHz and repeat the test with the pleated foil cable getting the time delay and using a sine wave calculate the attenuation in that range.

After that do the same but adding the BLS spare cable.

Best regards,  
Mario